

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

WSOU INVESTMENTS, LLC, d/b/a  
BRAZOS LICENSING AND  
DEVELOPMENT,

Plaintiff,

v.

HEWLETT PACKARD ENTERPRISE  
COMPANY,

Defendant.

Civil Action No. 6:20-cv-00729-ADA  
Civil Action No. 6:20-cv-00730-ADA  
Civil Action No. 6:20-cv-00783-ADA

**DEFENDANT'S RESPONSIVE MARKMAN BRIEF**

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**TABLE OF EXHIBITS**

**NO. DESCRIPTION**

- 1 U.S. Patent No. 7,646,729
- 2 USPTO Response Amendment, dated October 17, 2007
- 3 Applicant's Amendment and Remarks, dated April 2, 2008
- 4 Applicant's Amendment and Remarks, dated August 1, 2008
- 5 HPE Proposed Claim Constructions, dated February 16, 2021
- 6 Applicant's Amendment and Remarks, dated April 28, 2009
- 7 U.S. Patent No. 8,462,774
- 8 U.S. Patent No. 9,398,629

Defendant Hewlett Packard Enterprise Company (“HPE”) submits this brief in response to WSOU’s Opening Claim Construction Brief (Dkt. No. 37) addressing terms of U.S. Patent No. 7,646,729 (“the ’729 Patent”); U.S. Patent No. 8,462,774 (“the ’774 Patent”); and U.S. Patent No. 9,398,629 (“the ’629 Patent”).

This brief addresses the claim terms or phrases that the parties dispute across these three patents.<sup>1</sup>

## **I. THE ’729 PATENT CLAIM TERMS**

The ’729 Patent is directed to a method and apparatus for determining a network topology with a single sniffer. Ex. 1, ’729 Patent at 1:50-52. The ’729 Patent explains that, in the prior art, networks “are separated into different areas, each area containing a certain number of nodes. Each node in a particular area has knowledge of neighboring nodes. That is, information about each node is readily available to other nodes in the same area so that nodes in the same area can easily exchange information.” *Id.* at 1:13-18. Determining network configuration is “performed by executing a ‘sniffing’ operation at each area.” *Id.* at 1:27-28. In this context, “[t]he term sniffing pertains to monitoring and collecting information that the various nodes have about each other and is well known in the art.” *Id.* at 1:28-30. “Sniffing can be done either directly (by physically going to each area location and performing the required operations) or indirectly (by activating a remote Sniffer that is connected to and dedicated for each particular area).” *Id.* at 1:35-38. The complexity of determining the network configuration, or topology, becomes compounded as more areas are added to the network, and the “network equipment costs increase as a sniffer must be located at each new area to perform the required sniffing operation.” *Id.* at 1:41-46.

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<sup>1</sup> Emphases in quotations throughout the brief are added, unless otherwise indicated.

The '729 Patent addresses these disadvantages by providing a method by which a single sniffer can be adapted to collect information from nodes in different areas in the network. *Id.* at 1:50-56. The network of the '729 Patent includes a central inner ring area 102 and several outer ring areas 104 that are connected to the inner ring area via inner ring nodes 106. The nodes in each ring can only communicate with other nodes in that ring. *Id.* at 3:12-15. A sniffer exploits the Repair of Partition Areas feature (explained in the technical standard document ISO/IEC 10589:2001) to be configured as a partition designated inner ring node of a first outer ring, and thereby allow the sniffer to gather information from each node in the first outer ring area. *Id.* at 3:66-4:26. The sniffer is then reconfigured as a partition designated inner ring node of a second outer ring area. *Id.* at 4:27-30. Information is then appropriately sniffed and centrally received by the central sniffer 112 to obtain all necessary information about node in the second area. *Id.* at 4:65-5:1. In essence, the centrally placed sniffer poses as a member of individual outer rings to gather information about them. This process can be repeated until all such outer ring areas have been polled. *Id.* at 5:1-3. By using this method, the '729 Patent overcomes the disadvantages of the prior art. *Id.* at 4:33-38.

The system then uses conventional techniques to determine the topology mapping. *Id.* at 5:7-12.

#### A. “a sniffer” (claims 1, 13)

HPE’s Proposed Construction	WSOU’s Proposed Construction
computer hardware or software, connected to a central location of the network, that can intercept and log traffic flowing through a network without affecting the traffic or network characteristics, and which is not a network node, is not known to or detectable by other network elements, can be removed without directly affecting the network topology, and does not manage any aspect of the network	a computer software or hardware that can intercept and log traffic flowing through a network

The parties seem to agree that throughout prosecution the applicant clearly states that a sniffer is “a computer software or hardware that can intercept and log traffic flowing through a network.” Dkt. No. 37 at 2. However, contrary to the well settled law regarding the effect of applicant’s statements on claim construction (*see, e.g., Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2016)), WSOU argues that each of the remaining statements made by the patentee to overcome the art and clearly defining the scope of a “sniffer” within the meaning of the ’729 Patent should not be given weight. Dkt. No. 37 at 5. This is simply incorrect.

HPE’s inclusion of “without affecting the traffic or network characteristics,” “which is not a network node,” “is not known to or detectable by other network elements,” “can be removed without directly affecting the network topology,” and “does not manage any aspect of the network” in its proposed construction stems directly from the applicant’s statements during prosecution to distinguish the prior art. WSOU’s argument that the statements made during prosecution to distinguish the prior art do not rise to the level of disavowal is contrary to the law. *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 994 (Fed. Cir. 2003) (quoting *Pall Corp. v. PTI Techs. Inc.*, 259 F.3d 1383, 1392 (Fed. Cir. 2001) (“It is well established that ‘the prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.’”); *see also Saffran v. Johnson & Johnson*, 712 F.3d 549, 559 (Fed. Cir. 2013) (where inventor distinguished invention over the prior art on two grounds, ruling that both grounds were independently available to find a disclaimer)).

The applicant’s statements of what a “sniffer” is are clear and unequivocal. *Poly-Am.*, 839 F.3d at 1136 (Fed. Cir. 2016) (internal citations omitted) (“Disavowal can be effectuated by language in the specification or the prosecution history … While disavowal must be clear and unequivocal, it need not be explicit.”). The applicant first states a sniffer has no direct effect on the network traffic or characteristics:

A sniffer is a computer software or computer hardware that can intercept and log traffic flowing through a network. The sniffer identifies information of interest within an information stream or bit stream, captures it and eventually decodes its content, while allowing the stream to continue its flow. ***There is no direct effect on the stream by the sniffer.***

Ex. 2, Oct. 17, 2007 Response Amendment at 8. The applicant then doubles down six months later, explaining that not only does a sniffer not affect “traffic,” it similarly does not affect “network characteristics”:

As known to a person skilled in the art, a sniffer is a computer software or hardware that can intercept and log traffic flowing through a network. The sniffer identifies information of interest within an information stream or bit stream, captures it and eventually decodes its content, while allowing the stream to continue its flow. ***The sniffer itself or its presence does not directly affect the stream or the network characteristics.***

Ex. 3, Apr. 2, 2008 Applicant’s Amendment and Remarks at 9. The applicant then clarifies that, in addition to not affecting the “traffic or network characteristics,” the sniffer of the ’729 Patent is also “not known to or detectable by other network elements”:

[A] sniffer is a computer software or hardware that can intercept and log traffic flowing through a network. The sniffer identifies information of interest within an information stream or bit stream, captures it and eventually decodes its content, while allowing the stream to continue its flow. ***The sniffer itself or its presence does not directly affect the stream or the network characteristics.*** Moreover, ***one of the main characteristics of a sniffer is to stay undetected by other network elements. If a computer software or hardware network element is easily detected by other network elements, such a network element is not a sniffer even when configured to receive and interpret information.***

Ex. 4, Aug. 1, 2008 Applicant’s Amendment and Remarks at 8-9. Further, the applicant explained, removing the sniffer does not directly affect network characteristics or topology:

***Unlike sniffer, removing which does not directly affect the network characteristics,*** removing one of the nodes alters the network. A network missing a node is a network of new topology. Accordingly, the network node, even in the active sniffer state, cannot be a sniffer.

Ex. 3, Apr. 2, 2008 Applicant’s Amendment and Remarks at 9.

The applicant then argues that the fact that a sniffer is not known to other network devices and may be removed without affecting the network topology distinguishes “a sniffer” from “a network node”:

***Unlike a sniffer***, which presence in a network is not known to other network devices, ***when a network node is present in a network, other network devices know about the network node*** (i.e., the network node is a part of the network topology). Further, ***unlike a sniffer*** removing of which does not directly affect network characteristics (e.g., the network topology stays the same), ***removing of a network node from the network directly affects the network*** ( e.g., creates a new topology for the network).

Ex. 4, Aug. 1, 2008 Applicant’s Amendment and Remarks at 9. Finally, the applicant clearly states that “sniffers manage nothing.” Ex. 2, Oct. 17, 2007 Response Amendment at 9.

Each of these statements by the applicant constitutes a clear disavowal, limiting the scope of the claimed “sniffer.” *Poly-Am.*, 839 F.3d at 1136; *see also Saffran*, 712 F.3d at 560. Further, the single statement WSOU cites from the online FAQ cited in the background of the invention, which states “in practice, it is sometimes possible to detect sniffing programs,” is not sufficient to overcome the applicant’s numerous clear and unmistakable statements regarding the scope of “a sniffer” ***in this patent*** during prosecution. *See Springs Window*, 323 F.3d at 995 (“The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent.”).

WSOU also argues that sniffer is not required to be centrally located. Dkt. No. 37 at 3-4. This too is incorrect. Contrary to WSOU’s assertion that the sniffer is only centrally located in one embodiment, each embodiment described in the specification supports HPE’s construction requiring that the sniffer be “connected to a central location of the network.” The ’729 Patent specification describes “[t]he invention” as including:

a communications network having improved topology determination means comprising an inner nodal area, one or more outer nodal areas connected to the inner nodal area and means for detecting topology forming information about all

nodes in the inner and outer nodal areas *from a central location* in the communications network. The means for detecting the topology forming information is *a sniffer connected to the inner nodal area*.

Ex. 1, '729 Patent at 2:16-23. Thus, it is clear that the “sniffer” claimed in the patent is connected to the inner nodal area that is centrally located within the communications network. *See infra* I.C (explaining that the “inner nodal area” is centrally located). Similarly, in describing Figure 3, the patent refers to “a *centrally disposed sniffing device* in accordance with *the present invention*.<sup>7</sup>

*Id.* at 5:49-54. *Forest Lab'ys, LLC v. Sigmapharm Lab'ys, LLC*, 918 F.3d 928, 933 (Fed. Cir. 2019) (quoting *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007)) (“When a patent ... describes the features of the ‘present invention’ as a whole, this description limits the scope of the invention.”).

Where the specification permits any variation in the sniffer, it is only over whether the sniffer is “part of an existing network management system of the network” or “a stand-alone device connected independently to the central location of the network.” Ex. 1, '729 Patent at 1:59-62. Both types are centrally located, as confirmed in relation to Fig. 1:

The network 100 further comprises *a central sniffing device 112 that is connected centrally to the network 100 via to the inner ring 102*. In one embodiment of the invention, the sniffer is a specific component of the EMS 110 (shown by a broken line connection between the EMS 110 and the sniffer 112). In a second embodiment, the sniffer 112 is a stand-alone device that is independently connected to the network 100.

*Id.* at 3:51-65. Throughout the specification, regardless of any differences in details, the sniffer is always described as central. *See, e.g., id.* at 3:66 (“The central sniffer 112 exploits...”); *id.* at 4:13-15 (“The central sniffer 112 takes advantage of this ...”); *id.* at 4:39-48 (explaining that the network is “centrally” accessed by a “single” sniffer); *id.* at 4:65-67 (“Information is then appropriately sniffed and centrally received by the central sniffer 112”).

In support of its argument, WSOU can cite to only one sentence in the '729 Patent, with no corresponding description, making a boilerplate assertion that the sniffer may be non-centrally located. This single sentence is not sufficient to overcome the remaining disclosures of the '729 Patent. *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1366 (Fed. Cir. 2016) (A “single sentence in the specification cannot overcome the overwhelming evidence in other parts of the specification … The patentee cannot rely on its own use of inconsistent and confusing language in the specification to support a broad claim construction which is otherwise foreclosed.”).

Even if WSOU were somehow correct that this offhand sentence broadened the invention’s “sniffer” to non-centrally connected embodiments, it is clear that those hypothetical embodiments are not claimed in the '729 Patent. Claims 1 and 13 each require the sniffer to be configured as “a partition designated inner nodal-area node.” The '729 Patent only discloses configuring the sniffer as a “partitioned designated node” when the sniffer is centrally located. *See* '729 Patent at 1:63-66 (“The step of adapting the single sniffer additionally includes, in one embodiment, configuring the ***centrally connected network sniffer*** as a ***partitioned designated node*** of a selected area.”). Thus, even if alternative embodiments exist, the only embodiment *claimed* in the '729 Patent is one in which the sniffer is centrally located. *Pacing Techs., LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1026 (Fed. Cir. 2015)) (“where the patent describes multiple embodiments, every claim does not need to cover every embodiment”). A construction that included a non-central sniffer would further be disfavored because it would result in a claim that is invalid for lack of an enabling description. *See Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 707 (Fed. Cir. 2020) (“[W]hen the invention as claimed covers only the preferred

embodiment described in the written description, it is questionable whether a patentee may assert a proposed construction that is broader than the plain language of the claim.”).

Finally, WSOU’s claim differentiation argument cannot overturn the pervasive intrinsic evidence that the sniffer is centrally located. It is well settled that claim differentiation is a guide, not a rule (*GPNE Corp. v. Apple Inc.*, 830 F.3d 1365, 1371 (Fed. Cir. 2016)), and cannot be used to expand the scope of the claims. *CardSoft, (assignment for the Benefit of Creditors), LLC v. VeriFone, Inc.*, 807 F.3d 1346, 1352 (Fed. Cir. 2015) (claim differentiation cannot override clear meaning based on the specification and file history). Claim differentiation cannot make an independent claim broader than its dependent claim where specification does not support a broader interpretation. *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 541 (Fed. Cir. 1998).

HPE’s proposed construction reflects the limiting disclosures made in the specification and the prosecution history and should be adopted.

#### **B. “link status messages” (claims 1, 13) / “link state messages” (claims 7, 19)**

<b>HPE’s Proposed Construction</b>	<b>WSOU’s Proposed Construction</b>
indefinite	plain and ordinary meaning, not indefinite

WSOU argues that these terms do not require construction because they would be readily understood.<sup>2</sup> WSOU also argues in a footnote that the ’729 Patent uses the terms “link status messages” and “link state messages” interchangeably. Dkt. No. 37 at 6 n.7. Yet asserted claims’ use of two different terms is precisely the problem: it implies that the patentee intended them to have different meanings. See *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224

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<sup>2</sup> WSOU does not and could not identify any prejudice from the alleged waiver of indefiniteness arguments for this term. Dkt. No. 37 at 6. WSOU has known since at least the exchange of proposed constructions on February 16, 2021, that HPE contends these terms are indefinite, so WSOU had as much time to address this position as it did for the other proposed constructions. Ex. 5, Hewlett Packard Enterprise Co.’s Proposed Claim Constructions at 2.

F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”). This conflict renders the claims hopelessly confusing, because WSOU’s position that they are synonymous requires overcoming the presumption that they are not. WSOU has not done so.

The claims recite two types of messages. Independent claims 1 and 13 both use the term “link status messages” to identify information that the nodes of the outer nodal areas can only send to each other. *See Ex. 1, ’729 Patent*, claims 1 and 13. Dependent claims 7 and 19 use the terms “link state messages” to refer to information sent by the nodes of the outer nodal areas and collected by the sniffer. *See id.*, claims 7 and 19. The specification uses both terms, without clarifying their meanings. *See id.* at 3:3-4 (“link status messages”); *id.* at 2:3-4, 3:5-7, 3:26-29 (“link state messages”). WSOU’s conclusory footnote fails to reconcile them. The two short quotations WSOU offers as support do not even use the term “link status messages.” *See Dkt. No. 37 at 6 n.7.* Instead, the quoted material introduces yet another term, “link status information,” again without explaining the divergence.

WSOU does not cite any definition that equates the terms “link ***status*** messages” and “link ***state*** messages.” Indeed, all the citations WSOU points to in either the ’729 Patent or the ISO/IEC 10589 standard as “examples of how to form and transmit link ***status*** messages” refer only to “link ***state*** messages” or “link ***state*** PDUs.” Dkt. No. 37 at 6-7. There is no description of what a “link status message” is, or how it is used. These terms should be found indefinite because they do not, when “viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). Even if WSOU’s definitions were assumed

to establish a meaning for “link state messages,” they do not define “link status messages,” and therefore cannot cure the indefiniteness of the asserted claims.

**C. “inner nodal area” (claims 1, 13)**

HPE’s Proposed Construction	WSOU’s Proposed Construction
central ring of nodes connected to an element management system	inner routing subdomain with nodes that send link status messages only to each other

Whatever “link status messages” may mean, HPE has no quarrel with WSOU’s proposal that nodes of the “inner nodal area” send such messages only to each other. The dispute between the parties really amounts to whether the “inner nodal area” is a ring of nodes that is centrally located and connected to an element management system (EMS).

WSOU first argues that the word “area” should be understood to mean “routing subdomain.” Dkt. No. 37 at 7-8. HPE disagrees. The phrase “routing subdomain” does not appear within the specification or the claims. Nor do they suggest that the ISO/IEC standard provides the operative definition of “area.” Instead, the specification consistently describes the inner and outer nodal areas as “ring[s]” of nodes. *See* Ex. 1, ’729 Patent at 3:12-16; 3:21; 3:33-47; 3:50-61; 4:5; 4:15-26; 4:27-36; 4:45-51; 4:55-56; 4:63; 5:1-6; 5:8; 5:20. In view of this clear disclosure, the substitution of the language “routing domain” would be improper and should be rejected. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (A claim term must be understood “not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.”).

WSOU next argues that “[i]f an inner nodal area was necessarily ‘central,’ the patent would not describe detecting information about the nodes of such an area from a central location.” Dkt. No. 37 at 9. This argument is nonsensical; of course it is possible to use a

centrally located item to detect something about centrally located nodes. WSOU's argument is also contrary to the disclosure in the specification.

Starting with the claims, claims 1 and 13 each state that "the communications network comprises: ***an inner nodal area; and a plurality of outer nodal areas connected to the inner nodal area*** via respective nodes of the inner nodal area[.]" Ex. 1, '729 Patent, claims 1, 13. In view of the claim language, it would be readily understood that the "inner nodal area" serves as a central area to which each of the "plurality of outer nodal areas" connect. Indeed, this understanding is precisely how the specification of the '729 Patent describes the "inner nodal area:"

The invention also includes a communications network having improved topology determination means comprising ***an inner nodal area, one or more outer nodal areas connected to the inner nodal area and means for detecting topology forming information*** about all nodes in the inner and outer nodal areas ***from a central location*** in the communications network. The ***means for detecting the topology forming information is a sniffer connected to the inner nodal area.***

Ex. 1, '729 Patent at 2:16-23. Thus, it is clear that in the context of "[t]he invention" that the means for detecting the topology is centrally located because it is connected to the inner nodal area, which is a "central location." *Techtronic Indus. Co. v. Int'l Trade Comm'n*, 944 F.3d 901, 907 (Fed. Cir. 2019) ("It is axiomatic that, where the specification "describes 'the present invention' as having [a] feature," that representation may disavow contrary embodiments."); *Forest Lab'yrs*, 918 F.3d at 933 (quoting *Verizon*, 503 F.3d at 1308) ("When a patent ... describes the features of the 'present invention' as a whole, this description limits the scope of the invention.").

The remaining disclosure of the '729 Patent is consistent in its description of the inner ring as centrally located within the network. *See, e.g.*, 3:51-53 ("The network 100 further comprises a central sniffing device 112 that is ***connected centrally to the network 100 via to the***

*inner ring 102.”); 4:42-47 (“a network (such as network 100) is **centrally accessed** for the purposes of obtaining topology information. In one embodiment of the invention, this **central access is performed via a single sniffer** (such as sniffer 112 as seen in network 100) that has the ability to **function as an inner ring node 106”); 4:54-56 (“information about nodes in the first area are **centrally received** by the network. That is, **since the sniffer 112 functions as an inner ring node** of the first area ...”); 5:3-6 (“**sniffer 112** is appropriately **configured as a partition designated inner ring node** for such N areas, the partition repair feature executed and the **information centrally received by sniffer 112.”); and Fig. 1. Thus, it is clear that the inner nodal area must be a central ring of nodes. See *Wisconsin Alumni Rsch. Found. v. Apple Inc.*, 905 F.3d 1341, 1351 (Fed. Cir. 2018) (quoting *GPNE*, 830 F.3d at 1370) (Where, as here, “a patent ‘repeatedly and consistently’ characterizes a claim term in a particular way, it is proper to construe the claim term in accordance with that characterization.”). This is also consistent with the “central” connotation of the word “inner.”*****

Finally, WSOU confusingly argues that the “inner nodal area” should not be construed to be connected to an “element management system” (“EMS”) because the sniffer may be either a component of the EMS or a stand-alone device. Dkt. No. 37 at 9. Neither WSOU’s argument nor the portion of the specification it cites suggest that the EMS is merely an optional component of the communication network.

According to the ’729 Patent, the inner ring area has a “plurality of inner ring (L2) nodes” (Ex. 1 at 3:13), and “[a]ll the L2 nodes are connected to each other and to an element management system (EMS).” *Id.* at 2:64-66. The EMS is necessary because “[i]ndividual nodes or network elements are managed via the EMS using connectivity in the L2 area and the respective L1 areas.” *Id.* at 2:66-3:1; *see also id.* at 3:18-20 (“Each of the nodes 106 and 108

(and the network 100 in general) is managed by an element management system (EMS) 110.”). “The EMS 110 is connected to the network 100 via one of the inner ring nodes 106,” and “[p]roper operation of network 100 requires that each of the nodes 106 and 108 have appropriate connectivity to the EMS.” *Id.* at 3:20-24. Accordingly, the EMS is necessary for proper operation of the network and is connected via an inner ring node. WSOU can cite no evidence to the contrary. As such, HPE’s proposed construction should be adopted.

#### **D. “outer nodal area[s]” (claims 1, 13)**

HPE’s Proposed Construction	WSOU’s Proposed Construction
ring of nodes that shares only one node with said inner nodal area, and does not share any nodes with any other outer ring	outer routing subdomain with nodes that send link status messages only to each other

As with “inner nodal area,” aside from the lack of clarity of “link status messages” (*see* § I.B), HPE does not dispute that the “outer nodal area[s]” are made up of nodes that send messages only to each other. For the same reasons explained above in § I.C, the proper interpretation of the word “area” in the ’729 Patent is “ring of nodes” rather than WSOU’s proposed “routing subdomain.” The remaining dispute between the parties is whether the outer nodal area “shares only one node with said inner nodal area, and does not share any nodes with any other outer ring.” The intrinsic evidence makes clear that these requirements both apply.

As WSOU admits, “both inner and outer nodal areas are comprised of nodes that send link status messages only to each other.” Dkt. No. 37 at 8. The ’729 Patent explains that if a node in a first outer nodal area wants to send a message to a node in a second outer nodal area, it must first route the message to the inner node associated with the first outer nodal network, which must then route the message among the inner nodes to the inner node associated with the second outer nodal network, which then routes the message within the second outer nodal network to the proper node. Ex. 1, ’729 Patent at 3:7-11, 3:39-46. This convoluted approach to

sharing information is required because the nodes of each outer nodal area can only send messages to other nodes within that area. And the inability of the nodes in different outer nodal areas to communicate with one another is precisely the problem that inventors of the '729 Patent were attempting to solve.

In the prior art, sniffing required either physically going to each area location and performing the required operations or activating a remote sniffer that is connected to and dedicated for each particular area. *Id.* at 1:35-38. By contrast, the putative invention of the '729 Patent provides a particular method and apparatus for using a *single* sniffer to collect information from the inner nodal area and each outer nodal area *despite* the fact that the outer nodal areas cannot directly communicate with one another. *Id.* at 1:50-2:24. The '729 Patent does this by “configuring the sniffer as a partition designated inner nodal-area node of the first outer nodal area” and then “configuring the sniffer as a partition designated inner nodal-area node of the second outer nodal area.” *Id.* at claims 1 and 13. “[B]y reconfiguring one sniffer to act as a designated inner ring node for every outer ring area, the required information for determining topology can be obtained. By virtue of this improvement, it has been realized by the inventors that physical installation of sniffers in every outer ring area 104 may be avoided.” *Id.* at 4:31-36.

If, however, as WSOU argues, one or more “areas may share multiple nodes as long each contains at least one node that another selected area does not contain,” Dkt. No. 37 at 10, the various outer nodal areas would be able to communicate via their shared nodes, because all nodes in an area may send messages to other nodes in that area. This interpretation of “outer nodal area[s]” cannot be correct.

WSOU's sole evidence supporting its claims that outer nodal areas may share nodes is an isolated statement by the applicant relating to the term "selected areas." *Id.* at 10. However, a more fulsome review of the prosecution history shows that it also supports HPE's construction.

First, the term "selected areas," which WSOU relies on, included both the inner and outer nodal areas. *See Ex. 4, Aug. 1, 2008 Applicant's Amendment and Remarks at Original Claim 6* ("The method of claim 5, wherein said selected area further comprises an L1 area and an L2 area; and in the case of an L1 area being selected, said method further comprises configuring said sniffer as a partition designated L2 node of the selected LI area."). This is consistent with HPE's proposed construction stating that the outer nodal area shares a node with the inner nodal area. Further, after the discussion of "selected areas," the claims were later significantly amended by the applicant, thereby deleting the concept of "selected areas," and instead requiring the sniffer be adapted to collect information from *a first outer nodal area and a second outer nodal area*. *See Ex. 6, Apr. 28, 2009 Applicant's Amendment and Remarks at 2-9*. In describing its amendment, the applicant states that "as recited, a single sniffer is adapted to collect information from *different outer nodal areas* of a communications network by being configured as a partition designated inner-nodal-area node of such outer nodal areas." *Id.* at 12. Thus, it is clear that the claims require the two outer nodal areas to be different (i.e., the areas do not share nodes).

WSOU's arguments should be rejected because they are contrary to the disclosure of the specification, the prosecution history, and the purpose of the invention. *See Phillips*, 415 F.3d at 1316 ("In light of the statutory directive that the inventor provide a 'full' and 'exact' description of the claimed invention, the specification necessarily informs the proper construction of the claims."); *see also UltimatePointer, L.L.C. v. Nintendo Co., Ltd.*, 816 F.3d 816, 824 (Fed. Cir.

2016) (citing *Decisioning.com, Inc. v. Federated Dep’t Stores, Inc.*, 527 F.3d 1300, 1308 (Fed. Cir. 2008)) (interpreting a claim consistent with the disclosure of the specification, even when a broad interpretation that is not supported by the specification would be plausible if the term were “[d]ivorced from the specification”). HPE’s construction is more consistent with all of this intrinsic evidence and should be adopted by the Court.

**E. “configuring the sniffer as a partition designated inner nodal-area node of the [first / second / remaining] outer nodal area” (claims 1, 13)**

HPE’s Proposed Construction	WSOU’s Proposed Construction
employing the Repairs of Partition Areas feature of ISO/IEC 10589:2001 to create a virtual outer ring adjacency to receive link state messages from all nodes in the [first / second / remaining] outer nodal area	plain and ordinary meaning

WSOU argues that HPE’s proposed construction improperly limits the term to a single embodiment of a multi-embodiment invention. WSOU is mistaken; the central concept behind the entire invention is the ability to configure the sniffer as a member of each of the outer rings. The specification only describes one way to configure the sniffer, and describes it as the key to the invention. *See VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1318 (Fed. Cir. 2014) (discounting instance where the “specification mechanically prefaces most passages with the phrase ‘according to one aspect of the present invention,’” where the specification included clear identification of a particular protocol as “a key part of the novel solution to the specific problem identified in the prior art”). The specification of the ’729 Patent states that “[s]uch configuration is possible by virtue of the protocols used to manage the network as described in greater detail below.” Ex. 1, ’729 Patent at 3:3-65. The ’729 Patent goes on to explain, in no uncertain terms, that “[t]he central sniffer 112 exploits the Repair of Partition Areas feature as explained in ISO/IEC 10589:2001.” *Id.* at 3:66-67. The ’729 Patent then describes in detail how this Repair of Partition Areas feature is exploited to enable the invention:

Partitioning occurs when some portion of the network 100 (or an area 104/102 of the network) suffers a fault. As a result of the fault, the area is divided or partitioned into two subareas. An example of this phenomenon is depicted in FIG. 1A. Specifically, (denoted by dotted vertical line 114) first outer ring area 104 is partitioned into Subareas 104 and 104 as a result of a DCN fault. *The repair feature presented in ISO/IEC 10589:2001 provides the necessary information and instructions for repairing the fault so that the partitioned area is made whole again.* However, it has been realized that *the information provided to the network (e.g., the EMS 110 in the network) during the partition repair operation provides sufficient information for determining the topology of the network. The central sniffer 112 takes advantage of this new found information in the following manner.* Assuming that a certain outer ring area has to be sniffed (e.g., first outer ring area 104), the sniffer 112 is configured as a partition designated inner ring node 106 (e.g., another node comparable to first inner ring node 106) of that particular outer ring area (e.g., 104). This partition designated node 106 searches for a partition designated inner ring node in the original outer ring area. Then it creates a virtual outer ring adjacency with the partition designated inner ring node, thus it also receives all LSPs for the outer ring area to be sniffed. In one example of the invention, the searched-for partition designated inner ring is inner node 106 of system 100.

When all the LSPs have been received or after a time-out, the sniffer 112 is then configured to become a partition designated inner ring node of the next outer ring area to be sniffed (e.g., second outer ring area 104) and the process is repeated.

*Id.* at 3:67-4:30. The '729 Patent concludes: "Hence, by reconfiguring one sniffer to act as a designated inner ring node for every outer ring area, the required information for determining topology can be obtained. By virtue of this improvement, it has been realized by the inventors that physical installation of sniffers in every outer ring area 104 may be avoided." *Id.* at 4:31-36; *Forest Lab'ys*, 918 F.3d at 933 (A construction limiting the scope of the invention "is further supported by additional language in the specification, which explains the benefits over the prior art."); *Luminara Worldwide, LLC v. Liown Elecs. Co.*, 814 F.3d 1343, 1353-54 (Fed. Cir. 2016) (explaining that where the patent describes that a particular aspect of the invention solves the problems associated with the prior art, the patentee may disclaim other embodiments).

Similarly, in describing Figure 2, the '729 Patent again explains that "[t]he functionality of the sniffer 112 as an inner ring node 106 is accomplished by configuring the sniffer as a

partition designated inner ring node in accordance with the repair of partition feature of ISO/IEC 10589:2001.” Ex. 1, ’729 Patent at 4:48-51, and that the process is repeated for N number of areas in the network “[t]hat is, a sniffer 112 is appropriately configured as a partition designated inner ring node for such N areas, the partition repair feature executed and the information centrally received by sniffer 112.” *Id.* at 5:3-6. No other protocol for configuring the sniffer is described.

Thus, it is clear from the disclosure in the specification that the inventors’ discovery regarding a particular application of the Repair of Partition Areas feature explained in ISO/IEC 10589:2001 is precisely what the invention and the claims are directed to. *See Phillips*, 415 F.3d at 1316 (“In light of the statutory directive that the inventor provide a ‘full’ and ‘exact’ description of the claimed invention, the specification necessarily informs the proper construction of the claims.”); *see also UltimatePointer*, 816 F.3d at 824 (citing *Decisioning.com*, 527 F.3d at 1308) (interpreting a claim consistent with the disclosure of the specification, even when a broad interpretation that is not supported by the specification would be plausible if the term were “[d]ivorced from the specification”).

WSOU asserts that the inclusion of the generic language “those skill[ed] in the art can readily devise many other varied embodiments that still incorporate these teachings” demonstrated that the claims must be broader than the disclosure in the specification. Dkt. No. 37 at 11. This assertion however is without merit. The inclusion of such generic language does not serve to broaden the scope of what is claimed. *See ICHL, LLC v. NEC Corp. of Am.*, No. 5:08CV175, 2010 WL 1609232, at \*17 (E.D. Tex. Apr. 20, 2010), *aff’d*, No. 5:08-CV-065, 2010 WL 8938594 (E.D. Tex. Sept. 20, 2010), *aff’d sub nom. ICHL, LLC v. Sony Elecs., Inc.*, 455 F.

App'x 978 (Fed. Cir. 2011) (citing *Fromson v. Anitec Printing Plates*, 132 F.3d 1437, 1447 (Fed. Cir. 1997)).

Further, it is notable that where the applicant intended a particular technique to be exemplary, the applicant made this clear. For instance, with regard to the description of step 210 in Figure 2, the applicant state “the composition process is ***accomplished by known techniques*** by those skilled in the art for creating topology maps. ***Examples of these operations*** may be found in the Standard SmartDraw software package.” Ex. 1, ’729 Patent at 5:10-13. In contrast, in each instance that the ’729 Patent describes how the sniffer is configured as a partition designated inner node, it uses definitive language. *See, e.g.*, 3:66-67 (“***The central sniffer 112 exploits*** the Repair of Partition Areas feature as explained in ISO/IEC 10589:2001.”); 4:13-15 (“***The central sniffer 112 takes advantage*** of this new found information in the following manner.”); 4:48-51 (“***The functionality of the sniffer 112*** as an inner ring node 106 ***is accomplished*** by configuring the sniffer as a partition designated inner ring node in accordance ***with the repair of partition feature of ISO/IEC 10589:2001.***”). Use of the Repair of Partition Areas feature explained in ISO/IEC 10589:2001 is not an example, but is instead the key to the invention. *See SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1196 (Fed. Cir. 2013) (quoting *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008)) (“Disclaiming the ordinary meaning of a claim term—and thus, in effect, redefining it—can be affected through ‘repeated and definitive remarks in the written description.’”).

WSOU also argues that HPE’s construction should be rejected based on the concept of claim differentiation. This too is wrong. *GPNE*, 830 F.3d at 1371 (quoting *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005) (“Claim differentiation is “not a hard and fast rule,” but rather a presumption that will be overcome when the specification or prosecution

history dictates a contrary construction.”). The relevant claim language that is being construed recites “***configuring the sniffer as a partition designated inner nodal-area node of the*** [first / second / remaining] ***outer nodal area.***” Thus, the central issue relates to configuration of the sniffer. In contrast, WSOU cites limitations found in dependent claims 8, 9, 20, and 21, each of which relate not to the *configuration* of the sniffer but instead to the format of the “collected information.”<sup>3</sup>

WSOU’s arguments that inclusion of the ISO/IEC 10589:2001 standard in the construction of this term would make claims 9 and 21 superfluous should similarly be rejected. As described above, the specification clearly indicates that the invention relies on a unique feature of the standard (the Repair of Partition Areas feature) in order to accomplish the claimed function. The fact that other claims expressly recite the standard cannot serve to broaden the scope of the independent claims beyond the disclosure of the specification. *See Intell. Ventures I LLC v. Motorola Mobility LLC*, 870 F.3d 1320, 1326 (Fed. Cir. 2017) (quoting *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1302 (Fed. Cir. 1999)) (discussing the doctrine of claim differentiation—“that ‘doctrine …does not serve to broaden claims beyond their meaning in light of the specification.’”); *see also ATD*, 159 F.3d at 541 (claim differentiation cannot make independent claim broader than dependent claim where specification did not support broader interpretation). Thus, HPE’s construction is proper and should be adopted.

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<sup>3</sup> See Ex. 1, ’729 Patent at claim 8 (“The method of claim 1, wherein ***the collected information*** is based upon an existing network protocol.”) and Claim 20 (“The computer readable storage medium of claim 13, wherein ***said collected information*** is based upon an existing network protocol”); *see also* claims 9 and 21 (stating that the “existing network protocol” of claim 8 and claim 20, respectively, are “part of ISO-IEC 10589: 2001”).

## II. THE '774 PATENT CLAIM TERMS

The '774 Patent is directed to a method for configuring a virtual Internet Protocol (IP) interface on a local aggregation switch of a multi-chassis system. The '774 Patent describes a link aggregation group (LAG) that is split across two devices to “provide increased resiliency and remove a single point of failure.” Ex. 7, '774 Patent at 4:20-23. The '774 Patent refers to this as “a multi-chassis link aggregation group (MC-LAG).” *Id.* The MC-LAG “is split into two subsets and connected to two Aggregation Switches 106<sub>a</sub> and 106<sub>b</sub>, with one or more physical links of the MC-LAG 102<sub>a</sub> in each subset.” *Id.* at 4:24-27. “The Aggregation Switches 106<sub>a</sub> and 106<sub>b</sub> are separate physical switches with each operable as a stand-alone switch and each encased by its own separate physical chassis. The Aggregation Switches 106<sub>a</sub> and 106<sub>b</sub> may be in the same geographic area, such as in a central office or data center, or may be separate geographic locations.” *Id.* at 5:65-6:4. The Aggregation Switches 106 are coupled with a virtual fabric link (VFL) that is an aggregate of VFL member ports connected to one or more Network Interface Modules in the first and second Aggregation Switches. *Id.* at 6:21-29.

According to the '774 Patent, the MC-LAG is assigned to a multi-chassis link aggregate group virtual local area network which the patent refers to as a MC-LAG VLAN. *Id.* at 20:1-3. A virtual IP interface on each Aggregation Switch is allocated to the MC-LAG VLAN. *Id.* at 20:3-4. Thereafter, according to the '774 Patent, “an IP interface is configured for each VLAN coupled to the Aggregation Switches 106<sub>a</sub> and 106<sub>b</sub>.” *Id.* at 18:2-3, 20:5-6. “[I]n order to support IP interfaces on VLAN’s attached to MC-LAGs, the IP subnet running on such a MC-LAG VLAN can only be singly-attached to any outside Layer 3 routing infrastructure.” *Id.* at 18:9-11.

**A. “assigning the MC-LAG to a multi-chassis link aggregate group virtual local area network (MC-LAG VLAN)” (claim 12)**

HPE’s Proposed Construction	WSOU’s Proposed Construction
allocating each logical port of the MC-LAG corresponding to a virtual IP interface on the local and remote aggregation switches to the same VLAN	plain and ordinary meaning

WSOU argues that the words “assigning … to” are “non-technical, commonly understood words that have their plain and ordinary meaning.” The plain meaning of a term must be understood in light of the entire specification. *Phillips*, 415 F.3d at 1313 (A claim term must be understood “not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.”). Within the context of the ’774 Patent, the action of assigning a MC-LAG VLAN to the MC-LAG requires “allocating each logical port of the MC-LAG corresponding to a virtual IP interface on the local and remote aggregation switches to the same VLAN.”

This step of assigning the MC-LAG VLAN to an MC-LAG is central to the invention of the ’774 Patent. The ’774 Patent describes the problem:

in order to allow multiple Aggregation Switches to cooperate in Such a multi-chassis system, the Aggregation Switches may need to provide Layer 3 Services. To fully distribute Layer 3 information though between the Aggregation Switches adds unnecessary complexity and produces a scalability issue. Accordingly, there is a need for systems and methods to provide Layer 3 services on a multi-chassis system without the need to implement full synchronization of resources. Such as routing information, ARP tables and IP forwarding data bases.

Ex. 7, ’774 Patent at 2:50-60. In order to achieve this, the ’774 Patent, in part, describes a particular method by which a VLAN can be assigned to an MC-LAG, such that IP interfaces may be supported on the resulting MC-LAG VLAN. *See id.* at Abstract. The ’774 Patent only describes MC-LAG VLANs in reference to Figures 10-13. According to the ’774 Patent, “[t]he MC-LAG VLANs can only be configured on the multi chassis aggregate logical ports or on the

virtual fabric link (VFL) 124 logical link.” *Id.* at 18:54-56. “In general, an IP interface is configured for each VLAN coupled to the Aggregation Switches 106a and 106b.” *Id.* at 18:1-3. And IP interfaces correspond to particular ports on each Aggregation Switch. *See id.* at 18:17-25.

The ’774 Patent only provides two examples of the MC-LAG VLAN being assigned. In the first example, the ’774 Patent describes assigning an MC-LAG VLAN using the subnet 10.10.10.0 between the aggregation switches of the MC-LAG and an edge node by allocating the externally facing logical ports of the MC-LAG to the same VLAN thus assigning the IP address associated with the VLAN to the corresponding virtual IP interface.

As can be seen in FIG. 11, *MC-LAG VLAN 10 is configured on MC-LAG 102 coupled between Aggregation Switches 106a/106 (hereinafter referred to as M1/M2) and Edge Node 104. The IP address of 10.10.10.1 has been assigned to the virtual IP interface associated with MC-LAG VLAN 10.* In addition, a static MAC address (MACs) has also been assigned to the virtual IP interface for MC-LAG VLAN 10.

*Id.* at 18:58-65. In the second example, the ’774 Patent describes assigning an MC-LAG VLAN to the ports coupled to the virtual link between the aggregation switches and the corresponding virtual IP interfaces on each Aggregation Switch being assigned IP address in the subnet of the VLAN:

An example configuration of the MC-LAG VLAN on the VFL 124 is shown in FIG. 12. As can be seen in FIG. 12, the *ports coupled to the VFL 124 are assigned to MC-LAG VLAN 50. Thus, the virtual IP interfaces on each Aggregation Switch M1 and M2 are each assigned IP address in the subnet 50.50.50.0/24.* However, since MC-LAG VLAN 50 is only between Aggregation Switches M1 and M2, each virtual IP interface is assigned a different IP address/subnet and MAC address. For example, the virtual IP interface on M1 for MC-LAG VLAN 50 is assigned IP address 50.50.50.1 and MAC address MAC, while the virtual IP interface on M2 for MC-LAG VLAN 50 is assigned IP address 50.50.50.2 and MAC address MAC.

*Id.* at 19:37-49. It is clear from these examples that in order to assign an MC-LAG VLAN to the MC-LAG, virtual IP interfaces on both the local and remote aggregation switches are assigned IP

addresses associated with the VLAN, and each of the logical ports of the MC-LAG corresponding to those virtual IP interfaces are thereby allocated or assigned to same VLAN.

### **III. THE '629 PATENT CLAIM TERMS**

Devices in a wireless network communicate with each other through a series of interconnected routers, which the '629 Patent refers to as wireless local area network (WLAN) controllers. Ex. 8, '629 Patent at 1:25-67. The '629 Patent explains that “[a] typical wireless network architecture restricts the location of WLAN controllers in the same mobility domain to a single layer 2 network.” *Id.* at 1:60-62. According to the '629 Patent, there was a need for a “more flexible solution[.]” *Id.* at 1:65. The '629 Patent is purportedly directed to a means for adding a WLAN controller to an existing “mobility domain” that does not rely on the prior art “layer 2 broadcast protocols” necessary to discover the other WLAN controllers in the network. *Id.* at 1:57-67; 2:3-40. The '629 Patent accomplishes that task by registering the new WLAN controller with a “seed WLAN controller” that provides the relevant information about other WLAN controllers in the “mobility domain.” *Id.* at claim 1.

#### **A. “register,” “register request,” and “register acknowledgment” (claims 1, 8)**

HPE and WSOU have agreed to the construction “message requesting registration” for the claim term “register request,” and the construction “message acknowledging registration” for the claim term “register acknowledgment.” In light of these constructions, HPE now agrees that “register” does not need to be separately construed.

#### **B. “seed WLAN controller” (claim 1)**

<b>HPE’s Proposed Construction</b>	<b>WSOU’s Proposed Construction</b>
a WLAN controller that stores information for all WLAN controllers registered in the mobility domain	plain and ordinary meaning

WSOU correctly acknowledges that the plain language of this claim requires that the claimed “WLAN controller” seed information to the newly registered controller. Ex. 8, '629

Patent at claim 1; Dkt. No. 37 at 15. But, contrary to WSOU’s assertions, the plain language of the claims and the specification require that the seed WLAN controllers store information for all of the WLAN controllers in the mobility domain.

The specification describes the distributed wireless network with reference to Figure 1, and states that the network “includes a plurality of WLAN controllers 105a-d.” Ex. 8, ’629 Patent at 4:36-38. As Figure 1 shows, all four of the described WLAN controllers are in the same mobility domain 135. *Id.* at FIG. 1, 5:40-42 (“The WLAN controllers 105 in distributed network 100 are configured with a same mobility domain identifier and are thus are [sic] in a same mobility domain 135.”). The specification proceeds to describe the process of newly deploying WLAN controller 105d into the network of Figure 1. *Id.*, 6:39-45. Critically, the specification further states that “[a]fter configuration, WLAN controller 105d needs to discover and synchronize wireless device information with *the* other WLAN controllers 105 in mobility domain 135.” ’629 Patent at 6:49-52; *see also id.* at 7:42-49 (“The register Ack message includes information for *the* other WLAN controllers\ 105 registered in the same mobility domain 135. This WLAN controller information for the other WLAN controllers 105 includes at least the IP address of the WLAN controllers 105 and may also include other information, such as the controller group information and MAC addresses of *the* other WLAN controllers 105.”). The specification does not refer to *some of* the WLAN controllers, but simply “*the*” WLAN controllers. The specification thus makes clear that the newly registered controller must be able to receive information about *each of the* other WLAN controllers 105 in the network, and not just some of the WLAN controllers. The seed controller could not provide such information unless it stored the information for all other WLAN controllers in the mobility domain.

WSOU's construction improperly divorces the claims from their proper context in view of the specification, and further introduces arguments that find no support in the specification. For example, WSOU claims that “[w]here a mobility domain includes multiple seed WLAN controllers, each [can store] information for a different, incomplete subset of other WLAN controllers in the domain.” Dkt. No. 37 at 16. That claim is pure attorney argument, as WSOU cites to no evidence at all in support of the assertion that seed WLAN controllers can store different, incomplete subsets of other WLAN controllers. Indeed, the specification never uses the terms “incomplete” or “subset” at all. Because HPE’s construction properly interprets the claim in the context of the specification, it should be adopted and WSOU’s construction should be rejected.

### C. “a processing module operable to . . .” (claim 1)

HPE’s Proposed Construction	WSOU’s Proposed Construction
<p>Means plus function.</p> <p>The function is “determine an address of at least one seed WLAN controller in the mobility domain; register with the at least one seed WLAN controller in the mobility domain by: transmitting a register request including a layer 3 address of the WLAN controller to the at least one seed WLAN controller with a mobility domain identifier of the mobility domain; and receiving a register acknowledgement from the at least one seed WLAN controller when the mobility domain identifier matches a mobility domain identifier of the at least one seed WLAN controller; and receive information for other WLAN controllers in the mobility domain from the at least one seed WLAN controller.”</p> <p>The term is indefinite for insufficient disclosure of structure corresponding to the function.</p>	plain and ordinary meaning, not subject to 35 U.S.C. § 112(f), not indefinite

Claim 1 recites “a processing module operable to:” followed by a multi-part function:

1. A wireless local area network (WLAN) controller in a mobility domain, comprising:  
at least one memory; and  
a processing module operable to:  
determine an address of at least one seed WLAN controller in the mobility domain;  
register with the at least one seed WLAN controller in the mobility domain by:  
transmitting a register request including a layer 3 address of the WLAN controller to the at least one seed WLAN controller with a mobility domain identifier of the mobility domain; and  
receiving a register acknowledgement from the at least one seed WLAN controller when the mobility domain identifier matches a mobility domain identifier of the at least one seed WLAN controller; and  
receive information for other WLAN controllers in the mobility domain from the at least one seed WLAN controller.

Ex. 8, '629 Patent at 16:13-31. The above excerpt is copied directly from the '629 Patent document, showing the indentation of the five clauses under “a processing module operable to:” which indicates that they are all actions performed by the processing module. These five clauses constitute the claimed function of the “processing module,” as set forth in the “function” portion of HPE’s proposed construction.

The “processing module” introduces a claim term governed by 35 U.S.C. § 112(f). Although claim terms which do not recite the word “means” in the body are subject to a rebuttable presumption that they are not written in means-plus-function format, that presumption is weak. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348-49 (Fed. Cir. 2015) (overruling prior precedent and holding presumption against construing term as means-plus-function is not strong). Despite this, WSOU wrongly argues that the presumption is strong, and that the bare-bones term “processing module” recites sufficiently definite structure to take the term outside the reach of § 112(f). That position must be rejected for numerous reasons.

Courts have routinely acknowledged that the term “‘module’ is a well-known nonce word that can operate as a substitute for ‘means’ in the context of § 112(f).” *Williamson*, 792 F.3d at 1350 (construing a “module” term to be governed by § 112, paragraph 6, which later became § 112(f)). Courts have also held that the term “processing” as used in the phrase “processing module” is insufficient to provide structure that would take the claim term outside of § 112(f). *See, e.g., M2M Sols., LLC v. Sierra Wireless Am., Inc.*, No. 14-CV-01102-RGA, 2019 WL 6328119, at \*5 (D. Del. Nov. 26, 2019). In that case (just like here), the claim at issue recited no additional structure beyond the claimed “processing module,” and was therefore held to be written in means-plus-function format. Indeed, as claim 1 of the ’629 Patent states, the “processing module” must be operable to execute the function listed in the remainder of the claim. Ex. 8, ’629 Patent at 16:17-31. As all of that claim language is the ***function*** of the processing module, there is no further ***structure*** recited in that claim that could remove the term from the reach of § 112(f). Since WSOU does not dispute that the claim recites no further structural limitations, the claim is subject to § 112(f).

WSOU nevertheless contends that, during prosecution, the applicants stated that the claim term should not be subject to § 112(f). WSOU provides no support for the assertion that an applicant’s statement during prosecution can confer sufficient structure to a claim to save it from interpretation under § 112(f).<sup>4</sup> Moreover, WSOU wrongly contends that the specification supports the claim that “processing module” recites sufficiently definite structure to avoid construction under § 112(f). Dkt. No. 37 at 18-19. Indeed, the citations that WSOU provides show the opposite—that the described processing modules are merely conduits “operable to

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<sup>4</sup> The one case WSOU does cite, *CellNet Data*, addressed a different situation, where neither the applicant nor the examiner took a position on means-plus-function format during prosecution. *See CellNet Data Sys., Inc. v. Itron, Inc.*, 17 F. Supp. 2d 1100, 1108-09 (N.D. Cal. 1998).

perform the functions described herein.” Ex. 8, ’629 Patent at 15:8-10.

Once a claim term is deemed to be subject to § 112(f), the Court must consult the specification to try to identify a corresponding structure. *Sage Products, Inc. v. Devon Industries, Inc.*, 126 F.3d 1420, 1428 (Fed. Cir. 1997); *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1363 (Fed. Cir. 2012). If no such structure is disclosed, the claim term is indefinite. *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003). In the case of computer-implemented claims (such as this one), that corresponding structure must include an algorithm that is more than a restatement of the claimed function. See *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999); *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1337 (Fed. Cir. 2014). In this case, the specification fails to recite any specific algorithm that corresponds to the claimed “processing module,” rendering the claim term indefinite. See, e.g., *Augme Techs.*, 755 F.3d at 1337-38. Indeed, WSOU does not even attempt to point to any structure in the specification that performs the function described in the claim. Dkt. No. 37 at 18. Because no such structure exists, the claim term is indefinite.

**D. “receive information for other WLAN controllers in the mobility domain” / “receiving information for other WLAN controllers in the mobility domain” (claims 1, 8)**

HPE’s Proposed Construction	WSOU’s Proposed Construction
receive information including an IP address for other WLAN controllers in the mobility domain / receiving information including an IP address for other WLAN controllers in the mobility domain	plain and ordinary meaning

HPE’s construction is consistent with the specification of the ’629 Patent. When describing the process associated with claims 1 and 8, the specification states that the “WLAN controller information for the other WLAN controllers 105 *includes at least the IP address* of the WLAN controllers 105 and may also include other information, such as the controller group

information and MAC addresses of the other WLAN controllers 105.” Ex. 8, ’629 Patent, 7:45-49 (emphasis added). The specification discloses no other embodiments describing what this information could be. While the specification indicates that the claimed “information” “may also include other information,” it expressly *requires* that the information “includes at least the IP address.” WSOU’s contrary argument would render the claim invalid for lack of written description, since it would claim an embodiment not described by the specification.

WSOU argues that the principle of claim differentiation prohibits HPE’s construction, because it would allegedly render dependent claims 2 and 9 duplicative of independent claims 1 and 8. Dkt. No. 37 at 22. But while there is a general presumption that independent and dependent claims have different meanings, “claim differentiation is not a hard and fast rule, and the presumption can be overcome by a contrary construction required by the specification or prosecution history.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1374 (Fed. Cir. 2014); *see also* § I.E, *supra*. Here, the specification demands that claims 1 and 8 be construed to require the claimed information to include at least an IP address for other WLAN controllers. As the specification explains, once the registration process is complete, “[c]ontrol and data path connections are then setup between the newly registered WLAN controller 105d and the other WLAN controllers 105b, 105c in the mobility domain 135.” ’629 Patent, 8:9-11. The newly registered WLAN controller would not be able to set up connections with other WLAN controllers without knowing their IP addresses, because that information uniquely describes the location to which data should be sent to operate those connections. Since the specification makes clear that the claims could not be practiced without knowledge of at least the IP address of other WLAN controllers in the domain, claim differentiation does not support WSOU’s construction. HPE’s construction is therefore the only one consistent with the specification.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that on the 22nd day of March 2021, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system which will send notification of such filing to the following:

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